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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/829,495	04/22/2004	William Taylor	60027.0347US01/BS#030290	6926
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Merchant & Gould P.C. P.O. Box 2903 Minneapolis, MN 55402-0903			EXAMINER SHIVERS, ASHLEY L	
			ART UNIT 2419	PAPER NUMBER
			MAIL DATE 10/29/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/829,495

**Applicant(s)**

TAYLOR ET AL.

**Examiner**

ASHLEY L. SHIVERS

**Art Unit**

2419

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 October 2008.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-22 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 22 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/5508)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Continued Examination Under 37 CFR 1.114*

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 7, 2008 has been entered.

### *Specification*

2. The interlineations or cancellations made in the specification or amendments to the claims could lead to confusion and mistake during the issue and printing processes. In the amendment received on March 7, 2008, Applicants requested a change to the following paragraph beginning on page 3, line 5 and ending on page 3, line 15:

**Please replace the paragraph that begins on page 3, line 5 and ends on page 3, line 15 with the following amended paragraph:**

Current methods of repairing network circuits, however, do not include tracking of rerouted network circuits. For example, while repairing a network circuit, data may be rerouted to a backup circuit having an identification which is different than the original network circuit which failed. In order to access this information, a technician would be required to manually access the network database to lookup the identification of the failed network circuit and cross-reference this information with data obtained from the logical element module to identify the backup circuit used for rerouting network circuit data. Moreover, there is currently no way to monitor or track the performance of backup network circuits over time such that underperforming or over-utilized backup circuits may be identified. ~~It is with respect to these considerations and others that the present invention has been made.~~

The requested change actually begins on page 2, line 16 and ends on page 3, line

17.

Accordingly, the portion of the specification or claims as identified below is required to be rewritten before passing the case to issue. See 37 CFR 1.125 and MPEP § 608.01(q).

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 and 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coile et al. (U.S. Patent No. 6,108,300), hereinafter referred to as Coile in view of Chen et al. (U.S. PGPub 2005/0013242), hereinafter referred to as Chen.

Regarding claim 1, Coile teaches a method for fail-safe renaming of logical circuit identifiers for rerouted logical circuits in a data network, the method comprising:

providing a network management module (**All state transitions are noted in a syslog to the system administrator so that appropriate action may be taken, therefor the administrator can initiate the renaming of the circuits; See col. 9 lines 7-10**) for:

renaming a first logical circuit identifier for a first logical circuit in the data network to a second logical circuit identifier for a second logical circuit utilized for rerouting data from the first logical circuit in the data network (**When the primary device fails the active MAC address and IP address are changed to the standby MAC and IP addresses; See Fig. 7, 730 and col. 4 lines 11-15**); and

renaming, in response to the failure, a logical circuit label for the first logical circuit (**When the primary device fails the active MAC address and IP address are changed to the standby MAC and IP addresses; See Fig. 7, 730 and col. 4 lines 11-15**) in a logical element module (**Central processing unit; See col. 12 line 59**) in communication with the network management module (**The interfaces in the system contain associated logic that may control tasks such as media control and management; See col. 13 lines 5-7**),

wherein the renamed logical circuit label is utilized to indicate that the logical circuit data from the first logical circuit has been rerouted (**The standby device becomes active when the primary device fails and the primary device changes MAC and IP addresses to standby; See col. 2 lines 56-58 and col. 4 lines 11-15**), and

wherein the renamed logical circuit label includes the status of the failed logical circuit (**Each network device also has a series of flags which indicate the status of the device. A failed/not failed flag indicates whether the network device has failed or not failed; See col. 7 lines 53-54 and 65-66**) and indicates that the logical circuit identified by a customer ID (**Active IP address; See col. 8 lines 30-36**) for communicating data between a first and second location has been rerouted (**Once the primary connection has failed, the backup connection becomes the active and takes over the IP address and MAC address; See col. 4 lines 11-15 and col. 8 lines 30-36**).

Coile fails to teach of receiving a customer report indicating that there is a network circuit failure in the data network.

Chen teaches of a network management module (**control processing section; See [0039] lines 15-19**) for:

receiving a customer report indicating a network circuit failure in the data network (**A network device receives a failure message from another device that has detected a failure; See [0007] lines 1-3**), wherein indicating a network failure comprises receiving trap data (**a message**) indicating the network circuit failure (**The message indicates that there is a failure at another device; See [0023] lines 2-3**), wherein the trap data comprises status information indicating that a switch in the data network is discarding frames or cells (**It would have been obvious that any packets sent to a failed link would be dropped and therefore would be the cause of the message being sent to the source indicating that there is a failure at that device; See [0023] lines 1-8**); and

identifying, in response to the customer report, a failure in the logical circuit (**Upon receiving the message, the network device re-routes traffic from a primary path to an alternate path, therefore when the message is received the source is able to identify that there is a failure and re-routes the data; See [0007] lines 4-6**).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the method of Coile to include receiving a customer report indicating a network circuit failure in the data network and identifying a failure taught by Chen in order to initiate the rerouting of data to reduce packet loss.

Regarding claim 3, Coile further teaches the method of claim 1, wherein the second logical circuit is a logical failover circuit in the data network (**A backup network device; See Figs. 1-3, 120, 220, 310; col. 2 lines 56-58**).

Regarding claim 4, Coile further teaches the method of claim 1, wherein the second logical circuit is a currently unused logical circuit in the data network (**See Figs. 1-3, 120, 220 and 310; col. 2 lines 56-58**).

5. Claims 2, 5-6, 11, 13-15, 20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coile in view of Chen in further view of Ashton et al. (**U.S. Patent No. 6,181,679**), hereinafter referred to as Ashton.

Regarding claim 2, Coile further teaches the method of claim 1, wherein renaming a first logical circuit identifier for a first logical circuit in the data network to a second logical circuit identifier for a second logical circuit utilized for rerouting data from the first logical circuit in the data network, comprises:

accessing a network device provisioned for routing data over the first logical circuit in the data network (**A network device in the active state handles packets according to its configuration. The client sends data to the primary network device; See Fig. 1 and col. 8 lines 30-31**);



provisioning the second logical circuit in the network device for rerouting the data from the first logical circuit, wherein provisioning the second logical circuit includes assigning the second logical circuit identifier to identify the second logical circuit (**A backup network device; See Figs. 1-3, 120, 220, 310; col. 2 lines 56-58**); and

renaming the first logical circuit identifier to the second logical circuit identifier (**See col. 2 lines 56-58 and col. 4 lines 11-15**).

Coile in view of Chen fails to teach of deleting the first logical circuit upon detecting a failure.

Ashton teaches of deleting the first logical circuit in the network device upon detecting a failure in the first logical circuit (**The "F" bit is used by a network management system to remove the failed segments from service and to permit the substitution of a segment which is operative; See col. 3 lines 22-24**).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the method of Coile in view of Chen to include deleting the first logical circuit upon detecting a failure in the first logical circuit taught by Ashton in order to prevent traffic from continuing to be passed over this inoperable circuit.

Regarding claims 5 and 6, Coile in view of Chen fails to teach the method of claim 1 further comprising the first and second logical circuit identifiers being DLCIs.

Ashton teaches of the first and second logical circuit identifiers being data link connection identifiers (DLCI) **(The virtual circuit segments are identified by a DLCI; See col. 3 lines 16-18).**

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the method of Coile in view of Chen to include the first and second logical circuit identifiers being data link connection identifiers taught by Ashton in order to tell the network how to route the data.

Regarding claim 11, Coile in view of Chen fails to teach the method of claim 1, wherein the network is frame relay.

Ashton teaches of the data network being a frame relay network **(Fig. 1 is shown as a frame relay network; See col. 4 lines 55-57).**

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the method of Coile in view of Chen to include the data network being a frame relay network taught by Ashton in order to emphasize the type of network that can be implemented.

Regarding claim 13, Coile teaches of a system for fail-safe renaming of logical circuit identifiers for rerouted logical circuits in a data network, the system comprising:

a network device for establishing a communication path for a logical circuit and a logical failover circuit in the data network (**Active and backup network devices; See Figs. 1-3**);

a logical element module (**Central processing unit; See col. 12 line 59**) in communication with the network device for configuring the logical circuit and the logical failover circuit (**The interfaces in the system contain associated logic that may control tasks such as media control and management; See col. 13 lines 5-7**); and

a network management module, in communication with the logical element module (**All state transitions are noted in a syslog to the system administrator so that appropriate action may be taken, therefor the administrator can initiate the renaming of the circuits; See col. 9 lines 7-10**) for:

establishing the communication path for the logical failover circuit to reroute the data from the failed logical circuit (**The standby device becomes active when the primary device fails and the primary device changes MAC and IP addresses to standby; See col. 2 lines 56-58 and col. 4 lines 11-15**);

assigning a logical failover circuit identifier to identify the logical failover circuit (**A backup network device used when the primary has failed; See col. 8 lines 31-36**);

renaming a logical circuit identifier for the failed logical circuit to the logical failover circuit identifier in the network database (**The standby device becomes active when the primary device fails and the primary device changes MAC and IP addresses to standby; See col. 2 lines 56-58 and col. 4 lines 11-15.**); and

renaming, in response to the failure, a logical circuit label for the failed logical circuit in the logical element module (**When the primary device goes down, it is renamed with the standby MAC and IP address that it receives from the logical element module.**),

wherein the renamed logical circuit label is utilized to indicate that the logical circuit data from the failed logical circuit has been rerouted (**The standby device becomes active when the primary device fails and the primary device changes MAC and IP addresses to standby; See col. 2 lines 56-58 and col. 4 lines 11-15.**), and

wherein the renamed logical circuit label includes the status of the failed logical circuit and indicates that the logical circuit identified by a customer ID (**Active IP address; See col. 8 lines 30-36**) for communicating data between a first and second location has been rerouted (**Once the primary connection has failed, the backup connection becomes the active and takes over the IP address and MAC address; See col. 4 lines 11-15 and col. 8 lines 30-36.**)

Coile fails to teach of receiving a customer report indicating that there is a network circuit failure in the data network and deleting the communication path for the failed logical circuit in the network device.

Chen teaches of a network management module (**control processing section**; See [0039] lines 15-19) for:

receiving a customer report indicating a network circuit failure in the data network (**A network device receives a failure message from another device that has detected a failure**; See [0007] lines 1-3), wherein indicating a network failure comprises receiving trap data (**a message**) indicating the network circuit failure (**The message indicates that there is a failure at another device**; See [0023] lines 2-3), wherein the trap data comprises status information indicating that a switch in the data network is discarding frames or cells (**It would have been obvious that any packets sent to a failed link would be dropped and therefore would be the cause of the message being sent to the source indicating that there is a failure at that device**; See [0023] lines 1-8); and

identifying, in response to the customer report, a failure in the logical circuit (**Upon receiving the message, the network device re-routes traffic from a primary path to an alternate path, therefore when the message is received the source is able to identify that there is a failure and re-routes the data**; See [0007] lines 4-6).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the method of Coile to include receiving a customer report indicating a network circuit failure in the data network and identifying a failure taught by Chen in order to initiate the rerouting of data to reduce packet loss.

Coile in view of Chen still fails to teach of deleting the communication path for the failed logical circuit.

Ashton teaches of deleting the communication path for the failed logical circuit in the network device **(The "F" bit is used by a network management system to remove the failed segments from service and to permit the substitution of a segment which is operative; See col. 3 lines 22-24).**

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the method of Coile in view of Chen to include deleting the first logical circuit upon detecting a failure in the first logical circuit taught by Ashton in order to prevent traffic from continuing to be passed over this inoperable circuit.

Regarding claims 14 and 15, Coile in view of Chen fails to teach of the system of claim 13, wherein the logical and logical failover circuit identifiers are DLCIs.

Ashton teaches of the logical circuit identifiers being data link connection identifiers (DLCI) **(The virtual circuit segments are identified by a DLCI; See col. 3 lines 16-18).**

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the system of Coile in view of Chen to include the logical and logical failover circuit identifiers being data link connection identifiers taught by Ashton in order to tell the network how to route the data.

Regarding claim 20, Coile in view of Chen fails to teach of the system of claim 13, wherein the network is frame relay.

Ashton teaches of the data network is a frame relay network (**Fig. 1 is shown as a frame relay network; See col. 4 lines 55-57**).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the system of Coile in view of Chen to include the data network being a frame relay network taught by Ashton in order to emphasize the type of network that can be implemented.

Regarding claim 22, Coile teaches a method for fail-safe renaming of logical circuit identifiers for rerouted logical circuits in a data network, the method comprising:

providing a network management module (**All state transitions are noted in a syslog to the system administrator so that appropriate action may be taken, therefor the administrator can initiate the renaming of the circuits; See col. 9 lines 7-10**) for:

provisioning a second logical circuit in the network device for rerouting the data from the first logical circuit, wherein provisioning the second logical circuit includes assigning a second logical circuit identifier to identify the second logical circuit (**A backup network device; See Figs. 1-3, 120, 220, 310; col. 2 lines 56-58**);

renaming a first logical circuit identifier to the second logical circuit identifier (**The standby device becomes active when the primary device fails and the primary device changes MAC and IP addresses to standby; See col. 2 lines 56-58 and col. 4 lines 11-15**);and

renaming a logical circuit label, in response to the failure, for the first logical circuit (**When the primary device fails the active MAC address and IP address are changed to the standby MAC and IP addresses; See Fig. 7, 730 and col. 4 lines 11-15**) in a logical element module (**Central processing unit; See col. 12 line 59**) in communication with the network management module (**The interfaces in the system contain associated logic that may control tasks such as media control and management; See col. 13 lines 5-7**),



wherein the renamed logical circuit label is utilized to indicate that the logical circuit data from the first logical circuit has been rerouted (**The standby device becomes active when the primary device fails and the primary device changes MAC and IP addresses to standby; See col. 2 lines 56-58 and col. 4 lines 11-15**), and

wherein the renamed logical circuit label includes the status of the failed logical circuit and indicates that the logical circuit identified by a customer ID (**Active IP address; See col. 8 lines 30-36**) for communicating data between a first and second location has been rerouted (**Once the primary connection has failed, the backup connection becomes the active and takes over the IP address and MAC address; See col. 4 lines 11-15 and col. 8 lines 30-36**).

Coile fails to teach of receiving a customer report indicating that there is a network circuit failure in the data network, accessing a network device provisioned for routing data over a first logical circuit in the data network, and deleting the first logical circuit in the network device upon detecting a failure.

Chen teaches of a network management module (**control processing section; See [0039] lines 15-19**) for:

receiving a customer report indicating a network circuit failure in the data network (**A network device receives a failure message from another device that has detected a failure; See [0007] lines 1-3**), wherein indicating a network failure comprises receiving trap data (**a message**) indicating the network circuit failure (**The message indicates that there is a failure at another device; See [0023] lines 2-3**), wherein the trap data comprises status information indicating that a switch in the data network is discarding frames or cells (**It would have been obvious that any packets sent to a failed link would be dropped and therefore would be the cause of the message being sent to the source indicating that there is a failure at that device; See [0023] lines 1-8**);

identifying, in response to the customer report, a failure in the logical circuit (**Upon receiving the message, the network device re-routes traffic from a primary path to an alternate path, therefore when the message is received the source is able to identify that there is a failure and re-routes the data; See [0007] lines 4-6**); and

accessing, in response to the failure, a network device provisioned for routing data over a first logical circuit in the data network (**The source device is accessed; See [0007] lines 4-6**).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the method of Coile to include receiving a customer report indicating a network circuit failure in the data network, identifying a failure and accessing a device in response to the failure taught by Chen in order to initiate the rerouting of data to reduce packet loss.

Coile in view of Chen still fails to teach of deleting the first logical circuit in the network device upon detecting a failure.

Ashton teaches of deleting the first logical circuit in the network device upon detecting a failure in the first logical circuit (**The "F" bit is used by a network management system to remove the failed segments from service and to permit the substitution of a segment which is operative; See col. 3 lines 22-24**).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the method of Coile in view of Chen to include deleting the first logical circuit upon detecting a failure in the first logical circuit taught by Ashton in order to prevent traffic from continuing to be passed over this inoperable circuit.

6. Claims 7-9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coile in view of Chen in further view of Daley (**U.S. Patent No. 5,650,994**), hereinafter referred to as Daley.

Regarding claims 7 and 8, Coile in view of Chen fails to teach the method of claim 1, wherein the first and second logical identifiers are VPI/VCI.

Daley teaches of the first and second logical circuit identifiers being virtual path/virtual circuit identifiers (VPI/VCI) (See col. 20 lines 51-62).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the method of Coile in view of Chen to include VPI/VCI identifiers taught by Daley in order to identify the user and associated port.

Regarding claim 9, Coile in view of Chen fails to teach the method of claim 1, wherein the first and second logical circuits are PVCs.

Daley teaches of the first and second logical circuits being permanent virtual circuits (The data tables thus define "permanent virtual circuits" (PVC's) between the providers and the input ports of the access subnetwork; See col. 35 lines 45-47).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the method of Coile in view of Chen to include the logical circuits being PVCs taught by Daley in order to provide the type of path that the data is going to use to travel.

Regarding claim 12, Coile in view of Chen fails to teach the method of claim 1, wherein the data network is ATM.

Daley teaches of the data network being an asynchronous transfer mode (ATM) network **(In the preferred implementation of this network, the backbone subnetwork comprises one or more asynchronous transfer mode (ATM) switches; See col. 7 lines 20-22).**

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the method of Coile in view of Chen to include the data network being an ATM network taught by Daley in order to emphasize the type of network that can be implemented.

7. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Coile in view of Chen in further view of Wahl et al. (**U.S. PGPub 2002/0089985**), hereinafter referred to as Wahl.

Regarding claim 10, Coile in view of Chen fails to teach the method of claim 1, wherein the first and second logical circuits are SVCs.

Wahl teaches of the first and second logical circuits being switched virtual circuits (See [0047] lines 3-5).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the method of Coile in view of Chen to include the logical circuits being SVCs taught by Wahl in order to provide a level of quality of service for the data transfer.

8. Claims 16-18 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coile in view of Chen and Ashton in further view of Daley.

Regarding claims 16 and 17, Coile in view of Chen and Ashton fails to teach of the system of claim 13, wherein the logical and logical failover circuit identifiers are VPI/VCI.

Daley teaches of the logical and logical failover circuit identifiers being virtual path/virtual circuit identifiers (VPI/VCI) (See col. 20 lines 51-62).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the method of Coile in view of Chen and Ashton to include VPI/VCI identifiers taught by Daley in order to identify the user and associated port.

Regarding claim 18, Coile in view of Chen and Ashton fails to teach of the system of claim 13, wherein the logical and logical failover circuits are PVCs.

Daley teaches of the logical circuit and the logical failover circuit being permanent virtual circuits (The data tables thus define "permanent virtual circuits" (PVC's) between the providers and the input ports of the access subnetwork; See col. 35 lines 45-47).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the method of Coile in view of Chen and Ashton to include the logical circuit being a PVC taught by Daley in order to provide the type of path that the data is going to use to travel.

Regarding claim 21, Coile in view of Chen and Ashton fails to teach the system of claim 13, wherein the network is ATM.

Daley teaches of the data network being an asynchronous transfer mode (ATM) network **(In the preferred implementation of this network, the backbone subnetwork comprises one or more asynchronous transfer mode (ATM) switches; See col. 7 lines 20-22).**

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the method of Coile in view of Chen and Ashton to include the data network being an ATM network taught by Daley in order to emphasize the type of network that can be implemented.

9. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Coile in view of Chen and Ashton in further view of Wahl.

Regarding claim 19, Coile in view of Chen and Ashton fails to teach the system of claim 13, wherein the logical and logical failover circuits are SVCs.

Wahl teaches of the logical circuit and the logical failover circuit being switched virtual circuits (See [0047] lines 3-5).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the method of Coile in view of Chen and Ashton to include the logical circuits being SVCs taught by Wahl in order to provide a level of quality of service for the data transfer.

#### *Conclusion*

10. Any response to this action should be **faxed** to (571) 273-8300 or **mailed** to:

Commissioner of Patents,  
P.O. Box 1450  
Alexandria, VA 22313-1450

**Hand delivered responses should be brought to:**  
Customer Service Window  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ASHLEY L. SHIVERS whose telephone number is (571) 270-3523. The examiner can normally be reached on Monday-Thursday 8:00-6:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chirag Shah can be reached on (571) 272-3144. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ Ashley L Shivers/  
Examiner, Art Unit 2419  
10/22/2008

/Chirag G Shah/  
Supervisory Patent Examiner, Art Unit 2419